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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/997,420	11/29/2001	Rajendran Rajan	123097.100	6438
7590 03/22/2004				
James M. Singer Pepper Hamilton LLP 50th Floor 500 Grant Street Pittsburgh, PA 15219		EXAMINER LEE, CHI HO A		
		ART UNIT PAPER NUMBER		
		2663		
			DATE MAILED: 03/22/2004 7	

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/997,420

Applicant(s)

RAJAN ET AL.

Examiner

Andrew Lee

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 May 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 15-17 is/are allowed.
- 6) ☒ Claim(s) 1-14 and 18-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 5.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-9, 8-13, 19, 20-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Derby et al U.S. Patent Number 5,398,012.

Re Claims 1, 10, and 19, fig 3 teaches plurality of sub-networks 11 and 12 (individual areas in a domain) wherein AA1.3 of receives the best routes information (topology information) from MAG1 and MAG2 (See col. 5, lines 28 +); from the best route information from sub-networks 11 and 12, AA1.3 determines the least cost paths (identifying a plurality intra-area least cost) (See col. 6, lines 33-53), each access agent interface obtains the best route from itself to the end station in its subnetwork (computing...intra-area cost), wherein the designated access point collects all the best route information (receiving topology information), the designated AA computes the best route between subnetworks (identifying...a subset of intra-area least cost), and concatenates the route with the least weight (concatenating the candidate intra-area path) (See col.7, lines 35 + & fig. 7 & abstract), wherein the steps in fig. 7 is sequential.

Re Claims 2, 11, refer to Claim 1, wherein the concatenating route includes series links via routers.

Re Claims 3, 12, 20-23, refer to Claim 1, wherein AA1.3 identifies the local route information (cost path between start address to at least one exit point) from access agents AA.1, AA1.2 (one exit point) to the source ESA (starting address) in sub-network 11 (first area) for interconnecting to the sub-network 12, wherein the local route information determines the best local path from the access points to source ESA (selecting at least one of cost path in area one), wherein the designated AA concatenates the best route between sub-networks.

Re Claims 4, 8, refer to Claim 3, wherein the AA1.3 transmits the queries messages to AA1.1 and AA1.2 (destination address).

Re Claims 5, 9, 13, refer to Claim 3, after AA1.3 determines the best local route from the source, sends a FIND message to AA2.1, AA2.2, AA2.3 (exit points) at MAG2 of sub-network 12 (a second area), wherein the FIND message received at AA2.1, AA2.2, AA2.3 determines the best route from each to the destination ESB, once determines, a FOUND message is transmitted to the AA1.3 to determines the best route from ESA in MAG1 to ESB in MAG2 (constructing and selecting the at least one least cost path).

Re Claim 6, refer to Claim 4, wherein the AA1.3 transmits the FIND messages to AA2.1, AA2.2, and AA2.3 (destination address).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 7 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Derby et al U.S. Patent Number 5,398,012.

Re Claims 7 and 14, Derby et al fails to explicitly teach "second constructing and selecting step are repeated for one or more additional areas". Examiner takes official notice that networks are expandable to include additional areas. Fig. 6B teaches step 78 teaches sending "FIND" message to AAs in search groups. One skilled in the art would recognize that the search groups would include the existing sub-networks and the newly additional network. One skilled in the art would have been motivated when a new sub-network are added to an existing networks, selecting the best route includes routing information from all existing routes. Therefore, it would have been obvious to one ordinary skilled select/construct the least cost path from all existing paths.

5. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Derby et al U.S. Patent Number 5,398,012 in view of Arrowood et al U.S. Patent Number 5,101,348.

Re Claim 18, refer to Claim 1, the received ARP(s) (list of routing events) is processed by method steps of fig 6A. These steps teach a method of providing a routing information from access points within sub-network and intra-sub-network for constructing the best path between the sub-networks. Derby et al fails to explicitly teach updating the routing information in accordance with a next routing event. Arrowood et al teaches updating the routing database to indicate the current topology

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(See abstract). One skilled in the art would have motivated to use current information in the database in determining the best route. Therefore, it would have been obvious to one ordinary skilled incorporate the teaching of Arrowood et al into the teaching of Derby et al.

It is inherent repeat the constructing and updating process until all the ARP requests have been completed.

Response to Arguments

6. Applicant's arguments filed 5/28/03 have been fully considered but they are not persuasive.

Applicant argues that Derby et al fails to teach, "identifying a plurality of intra-area least cost from the topology information".

Examiner disagrees.

Each AA collects best route information within itself and is collected at a designated AA (See O.A. paragraph 2). Hence, the designated AA does collect intra-area cost information from plurality of subnetworks, wherein the designated AA constructs or assemble an end-to-end route using the retrieved information.

Applicant argues that Derby fails to teach, "the sequential best path determination from an entry point to all exit points of an area".

Examiner disagrees.

Each AA collects the best route information within itself, reads on the subject matter. It is unclear where this claim limitation is recited. Regardless, when an AA

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determines best route within itself, it inherently determines the best routes to all exit points within it's area.

Regarding Claim 18, Applicant argues that Derby in view of Arrowwood fail to teach or suggest, "ordered list as a historical record of all routing events that have been received after the time a given routing information context was constructed."

However, this limitation is not claimed.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Lee whose telephone number is 703-305-1500. The examiner can normally be reached on Monday to Friday from 8:30AM to 6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on 703-308-5340. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

ANDY LEE
PATENT EXAMINER

AI
March 24, 2004